Figure 1: Human POSH Coding Sequence (SEQ ID NO:1) (part 1)

ATGGATGAATCAGCCTTGTTGGATCTTTTGGAGTGTCCGGTGTGTCTAGAGCGCCTTGATGCTTCTGCGA
AGGTCTTGCCTTGCCAGCATACGTTTTGCAAGCGATGTTTGCTGGGGATCGTAGGTTCTCGAAATGAACT
CAGATGTCCCGAGTGCAGGACTCTTGTTGGCTCGGGTGTCGAGGAGCTTCCCAGTAACATCTTGCTGGTC
AGACTTCTGGATGGCATCAAACAGAGGCCTTGGAAACCTGGTCCTGGTGGGGGAAGTGGGACCAACTGCA
CAAATGCATTAAGGTCTCAGAGCAGCACTGTGGCTAATTGTAGCTCAAAAGATCTGCAGAGCTCCCAGGG
CGGACAGCAGCCTCGGGTGCAATCCTGGAGCCCCCCAGTGAGGGGTATACCTCAGTTACCATGTGCCAAA
GCGTTATACAACTATGAAGGAAAAGAGCCTGGAGACCTTAAATTCAGCAAAGGCGACATCATCATTTTGC
GAAGACAAGTGGATGAAAATTGGTACCATGGGGAAGTCAATGGAATCCATGGCTTTTTCCCCACCAACTT
TGTGCAGATTATTAAACCGTTACCTCAGCCCCCACCTCAGTGCAAAGCACTTTATGACTTTGAAGTGAAA
GACAAGGAAGCAGACAAAGATTGCCTTCCATTTGCAAAGGATGATGTTCTGACTGTGATCCGAAGAGTGG
ATGAAAACTGGGCTGAAGGAATGCTGGCAGACAAAATAGGAATATTTCCAATTTCATATGTTGAGTTTAA
CTCGGCTGCTAAGCAGCTGATAGAATGGGATAAGCCTCCTGTGCCAGGAGTTGATGCTGGAGAATGTTCC
TCGGCAGCAGCCCAGAGCAGCACTGCCCCAAAGCACTCCGACACCAAGAAGAACACCAAAAAGCGGCACT
CCTTCACTTCCCTCACTATGGCCAACAAGTCCTCCCAGGCATCCCAGAACCGCCACTCCATGGAGATCAG
CCCCCCTGTCCTCATCAGCTCCAGCAACCCCACTGCTGCTGCACGGATCAGCGAGCTGTCTGGGCTCTCC
TGCAGTGCCCCTTCTCAGGTTCATATAAGTACCACCGGGTTAATTGTGACCCCGCCCCCAAGCAGCCCAG
TGACAACTGGCCCCTCGTTTACTTTCCCATCAGATGTTCCCTACCAAGCTGCCCTTGGAACTTTGAATCC
TCCTCTTCCACCACCCCCTCTCCTGGCTGCCACTGTCCTTGCCTCCACACCACCAGGCGCCACCGCCGCC
GCTGCTGCTGCTGGAATGGGACCGAGGCCCATGGCAGGATCCACTGACCAGATTGCACATTTACGGCCGC
AGACTCGCCCCAGTGTGTATGTTGCTATATATCCATACACTCCTCGGAAAGAGGATGAACTAGAGCTGAG
AAAAGGGGAGATGTTTTTAGTGTTTGAGCGCTGCCAGGATGGCTGGTTCAAAGGGACATCCATGCATACC
AGCAAGATAGGGGTTTTCCCTGGCAATTATGTGGCACCAGTCACAAGGGCGGTGACAAATGCTTCCCAAG
CTAAAGTCCCTATGTCTACAGCTGGCCAGACAAGTCGGGGAGTGACCATGGTCAGTCCTTCCACGGCAGG
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ACCAGGCCCGCAATGCTGTGAGGACAGTTGCAGCGCACAACCAGGAACGCCCCACGGCAGCAGTGACACC
CATCCAGGTACAGAATGCCGCCGGCCTCAGCCCTGCATCTGTGGGCCTGTCCCATCACTCGCTGGCCTCC
CCACAACCTGCGCCTCTGATGCCAGGCTCAGCCACGCACACTGCTGCCATCAGTATCAGTCGAGCCAGTG
CCCCTCTGGCCTGTGCAGCAGCTGCTCCACTGACTTCCCCAAGCATCACCAGTGCTTCTCTGGAGGCTGA
GCCCAGTGGCCGGATAGTGACCGTTCTCCCTGGACTCCCCACATCTCCTGACAGTGCTTCATCAGCTTGT
GGGAACAGTTCAGCAACCAAACCAGACAAGGATAGCAAAAAAGAAAAAAAGGGTTTGTTGAAGTTGCTTT
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CAGTGCAGAGCTTCCTCTCCAGGGAGCGGTGGGGCCCGAACTGCCACCAGGAGGTGGCCATGGCAGGGCA
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CTCCCTGGGTCCTGTCTTGAATGAGTCTAGACCTGTCGTTTGTGAAAGGCACAGGGTGGTGGTTTCCTAT
CCTCCTCAGAGTGAGGCAGAACTTGAACTTAAAGAAGGAGATATTGTGTTTGTTCATAAAAAACGAGAGG
ATGGCTGGTTCAAAGGCACATTACAACGTAATGGGAAAACTGGCCTTTTCCCAGGAAGCTTTGTGGAAAA
CATATGA

Figure 2: Human POSH Amino Acid Sequence (SEQ ID NO:2) (part 2)

MDESALLDLLECPVCLERLDASAKVLPCQHTFCKRCLLGIVGSRNELRCPECRTLVGSGVEELPSNILLV
RLLDGIKQRPWKPGPGGGSGTNCTNALRSQSSTVANCSSKDLQSSQGGQQPRVQSWSPPVRGIPQLPCAK
ALYNYEGKEPGDLKFSKGDIIILRRQVDENWYHGEVNGIHGFFPTNFVQIIKPLPQPPPQCKALYDFEVK
DKEADKDCLPFAKDDVLTVIRRVDENWAEGMLADKIGIFPISYVEFNSAAKQLIEWDKPPVPGVDAGECS
SAAAQSSTAPKHSDTKKNTKKRHSFTSLTMANKSSQASQNRHSMEISPPVLISSSNPTAAARISELSGLS
CSAPSQVHISTTGLIVTPPPSSPVTTGPSFTFPSDVPYQAALGTLNPPLPPPPLLAATVLASTPPGATAA
AAAAGMGPRPMAGSTDQIAHLRPQTRPSVYVAIYPYTPRKEDELELRKGEMFLVFERCQDGWFKGTSMHT
SKIGVFPGNYVAPVTRAVTNASQAKVPMSTAGQTSRGVTMVSPSTAGGPAQKLQGNGVAGSPSVVPAAVV
SAAHIQTSPQAKVLLHMTGQMTVNQARNAVRTVAAHNQERPTAAVTPIQVQNAAGLSPASVGLSHHSLAS
PQPAPLMPGSATHTAAISISRASAPLACAAAAPLTSPSITSASLEAEPSGRIVTVLPGLPTSPDSASSAC
GNSSATKPDKDSKKEKKGLLKLLSGASTKRKPRVSPPASPTLEVELGSAELPLQGAVGPELPPGGGHGRA
GSCPVDGDGPVTTAVAGAALAQDAFHRKASSLDSAVPIAPPPRQACSSLGPVLNESRPVVCERHRVVVSY
PPQSEAELELKEGDIVFVHKKREDGWFKGTLQRNGKTGLFPGSFVENI

Figure 3: Human POSH cDNA Sequence (SEQ ID NO:3)

CTGAGAGACACTGCGAGCGGCGAGCGCGGTGGGGCCGCATCTGCATCAGCCGCCGCAGCCGCTGCGGGGC
CGCGAACAAAGAGGAGGAGCCGAGGCGCGAGAGCAAAGTCTGAAATGGATGTTACATGAGTCATTTTAAG
GGATGCACACAACTATGAACATTTCTGAAGATTTTTTCTCAGTAAAGTAGATAAAGATGGATGAATCAGC
CTTGTTGGATCTTTTGGAGTGTCCGGTGTGTCTAGAGCGCCTTGATGCTTCTGCGAAGGTCTTGCCTTGC
CAGCATACGTTTTGCAAGCGATGTTTGCTGGGGATCGTAGGTTCTCGAAATGAACTCAGATGTCCCGAGT
GCAGGACTCTTGTTGGCTCGGGTGTCGAGGAGCTTCCCAGTAACATCTTGCTGGTCAGACTTCTGGATGG
CATCAAACAGAGGCCTTGGAAACCTGGTCCTGGTGGGGGAAGTGGGACCAACTGCACAAATGCATTAAGG
TCTCAGAGCAGCACTGTGGCTAATTGTAGCTCAAAAGATCTGCAGAGCTCCCAGGGCGGACAGCAGCCTC
GGGTGCAATCCTGGAGCCCCCCAGTGAGGGGTATACCTCAGTTACCATGTGCCAAAGCGTTATACAACTA
TGAAGGAAAAGAGCCTGGAGACCTTAAATTCAGCAAAGGCGACATCATCATTTTGCGAAGACAAGTGGAT
GAAAATTGGTACCATGGGGAAGTCAATGGAATCCATGGCTTTTTCCCCACCAACTTTGTGCAGATTATTA
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CAAAGATTGCCTTCCATTTGCAAAGGATGATGTTCTGACTGTGATCCGAAGAGTGGATGAAAACTGGGCT
GAAGGAATGCTGGCAGACAAAATAGGAATATTTCCAATTTCATATGTTGAGTTTAACTCGGCTGCTAAGC
AGCTGATAGAATGGGATAAGCCTCCTGTGCCAGGAGTTGATGCTGGAGAATGTTCCTCGGCAGCAGCCCA
GAGCAGCACTGCCCCAAAGCACTCCGACACCAAGAAGAACACCAAAAAGCGGCACTCCTTCACTTCCCTC
ACTATGGCCAACAAGTCCTCCCAGGCATCCCAGAACCGCCACTCCATGGAGATCAGCCCCCCTGTCCTCA
TCAGCTCCAGCAACCCCACTGCTGCTGCACGGATCAGCGAGCTGTCTGGGCTCTCCTGCAGTGCCCCTTC
TCAGGTTCATATAAGTACCACCGGGTTAATTGTGACCCCGCCCCCAAGCAGCCCAGTGACAACTGGCCCC
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CCCCTCTCCTGGCTGCCACTGTCCTTGCCTCCACACCACCAGGCGCCACCGCCGCCGCTGCTGCTGCTGG
AATGGGACCGAGGCCCATGGCAGGATCCACTGACCAGATTGCACATTTACGGCCGCAGACTCGCCCCAGT
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TTTCCCTGGCAATTATGTGGCACCAGTCACAAGGGCGGTGACAAATGCTTCCCAAGCTAAAGTCCCTATG
TCTACAGCTGGCCAGACAAGTCGGGGAGTGACCATGGTCAGTCCTTCCACGGCAGGAGGGCCTGCCCAGA
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ATGCCGCCGGCCTCAGCCCTGCATCTGTGGGCCTGTCCCATCACTCGCTGGCCTCCCCACAACCTGCGCC
TCTGATGCCAGGCTCAGCCACGCACACTGCTGCCATCAGTATCAGTCGAGCCAGTGCCCCTCTGGCCTGT
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AACCAAACCAGACAAGGATAGCAAAAAAGAAAAAAAGGGTTTGTTGAAGTTGCTTTCTGGCGCCTCCACT
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CTCTCCAGGGAGCGGTGGGGCCCGAACTGCCACCAGGAGGTGGCCATGGCAGGGCAGGCTCCTGCCCTGT
GGACGGGGACGGACCGGTCACGACTGCAGTGGCAGGAGCAGCCCTGGCCCAGGATGCTTTTCATAGGAAG
GCAAGTTCCCTGGACTCCGCAGTTCCCATCGCTCCACCTCCTCGCCAGGCCTGTTCCTCCCTGGGTCCTG
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GACACTGAAGAAGCTTAAAATCACTTCACACAACAAAGTAGCACAAAGCAGTTTAACAGAAAGAGCACAT
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CCTTGTACTGTCTGATTTACTACACAGAGAAACTTTTTTTTTTTTTTTAAGATATATGACTAAAATGGACA
ATTGTTTACAAGGCTTAACTAATTTATTTGCTTTTTTAAACTTGAACTTTTCGTATAATAGATACGTTCT
TTGGATTATGATTTTAAGAAATTATTAATTTATGAAATGATAGGTAAGGAGAAGCTGGATTATCTCCTGT
TGAGAGCAAGAGATTCGTTTTGACATAGAGTGAATGCATTTTCCCCTCTCCTCCTCCCTGCTACCATTAT
ATTTTGGGGTTATGTTTTGCTTCTTTAAGATAGAAATCCCAGTTCTCTAATTTGGTTTTCTTCTTTGGGA
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AGTTAGTGATTCCCTCTCTTTCTAGTTTGGTAGGAATCACCCTGAAGACCTAGTCCTCAATTTAATTGTG
TGGGTTTTTAATTTTCCTAGAATGAAGTGACTGAAACAATGAGAAAGAATACAGCACAACCCTTGAACAA
AATGTATTTAGAAATATATTTAGTTTTATAGCAGAAGCAGCTCAATTGTTTGGTTGGAAAGTAGGGGAAA
TTGAAGTTGTAGTCACTGTCTGAGAATGGCTATGAAGCGTCATTTCACATTTTACCCCAACTGACCTGCA
TGCCCAGGACACAAGTAAAACATTTGTGAGATAGTGGTGGTAAGTGATGCACTCGTGTTAAGTCAAAGGC
TATAAGAAACACTGTGAAAAGTTCATATTCATCCATTGTGATTCTTTCCCCACGTCTTGCATGTATTACT
GGATTCCCACAGTAATATAGACTGTGCATGGTGTGTATATTTCATTGCGATTTCCTGTTAAGATGAGTTT
GTACTCAGAATTGACCAATTCAGGAGGTGTAAAAATAAACAGTGTTCTCTTCTCTACCCCAAAGCCACTA

-to be continued

Figure 3: Human POSH cDNA Sequence (SEQ ID NO:3)

CTGACCAAGGTCTCTTCAGTGCACTCGCTCCCTCTCTGGCTAAGGCATGCATTAGCCACTACACAAGTCA
TTAGTGAAAGTGGTCTTTTATGTCCTCCCAGCAGACAGACATCAAGGATGAGTTAACCAGGAGACTACTC
CTGTGACTGTGGAGCTCTGGAAGGCTTGGTGGGAGTGAATTTGCCCACACCTTACAATTGTGGCAGGATC
CAGAAGAGCCTGTCTTTTTATATCCATTCCTTGATGTCATTGGCCTCTCCCACCGATTTCATTACGGTGC
CACGCAGTCATGGATCTGGGTAGTCCGGAAAACAAAAGGAGGGAAGACAGCCTGGTAATGAATAAGATCC
TTACCACAGTTTTCTCATGGGAAATACATAATAAACCCTTTCATCTTTTTTTTTTTCCTTTAAGAATTAA
AACTGGGAAATAGAAACATGAACTGAAAAGTCTTGCAATGACAAGAGGTTTCATGGTCTTAAAAAGATAC
TTTATATGGTTGAAGATGAAATCATTCCTAAATTAACCTTTTTTTTAAAAAAAAACAATGTATATTATGT
TCCTGTGTGTTGAATTTAAAAAAAAAAAATACTTTACTTGGATATTCATGTAATATATAAAGGTTTGGTG
AAATGAACTTTAGTTAGGAAAAAGCTGGCATCAGCTTTCATCTGTGTAAGTTGACACCAATGTGTCATAA
TATTCTTTATTTTGGGAAATTAGTGTATTTTATAAAAATTTTAAAAAGAAAAAAGACTACTACAGGTTAA
GATAATTTTTTTACCTGTCTTTTCTCCATATTTTAAGCTATGTGATTGAAGTACCTCTGTTCATAGTTTC
CTGGTATAAAGTTGGTTAAAATTTCATCTGTTAATAGATCATTAGGTAATATAATGTATGGGTTTTCTAT
TGGTTTTTTGCAGACAGTAGAGGGAGATTTTGTAACAAGGGCTTGTTACACAGTGATATGGTAATGATAA
AATTGCAATTTATCACTCCTTTTCATGTTAATAATTTGAGGACTGGATAAAAGGTTTCAAGATTAAAATT
TGATGTTCAAACCTTTGT

Figure 4: 5' cDNA fragment of human POSH (public gi:10432611; SEQ ID NO:4)

ctgagagacactgcgagcggcgagcgcggtggggccgcatctgcatcagccgccgcagccgctgcggggc
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agtgaccgttctccctggactccccacatctcctgacagtgcttcatcagcttgtgggaacagttcagca
accaaaccagacaaggatagc

Figure 5: N terminus protein fragment of hPOSH (public gi:10432612; SEQ ID NO:5)

MDESALLDLLECPVCLERLDASAKVLPCQHTFCKRCLLGIVGSRNELRCPECRTLVGSGVEELPSNILLV
RLLDGIKQRPWKPGPGGGSGTNCTNALRSQSSTVANCSSKDLQSSQGGQQPRVQSWSPPVRGIPQLPCAK
ALYNYEGKEPGDLKFSKGDIIILRRQVDENWYHGEVNGIHGFFPTNFVQIIKPLPQPPPQCKALYDFEVK
DKEADKDCLPFAKDDVLTVIRRVDENWAEGMLADKIGIFPISYVEFNSAAKQLIEWDKPPVPGVDAGECS
SAAAQSSTAPKHSDTKKNTKKRHSFTSLTMANKSSQASQNRHSMEISPPVLISSSNPTAAARISELSGLS
CSAPSQVHISTTGLIVTPPPSSPVTTGPSFTFPSDVPYQAALGTLNPPLPPPPLLAATVLASTPPGATAA
AAAAGMGPRPMAGSTDQIAHLRPQTRPSVYVAIYPYTPRKEDELELRKGEMFLVFERCQDGWFKGTSMHT
SKIGVFPGNYVAPVTRAVTNASQAKVPMSTAGQTSRGVTMVSPSTAGGPAQKLQGNGVAGSPSVVPAAVV
SAAHIQTSPQAKVLLHMTGQMTVNQARNAVRTVAAHNQERPTAAVTPIQVQNAAGLSPASVGLSHHSLAS
PQPAPLMPGSATHTAAISISRASAPLACAAAAPLTSPSITSASLEAEPSGRIVTVLPGLPTSPDSASSAC
GNSSATKPDKDS

Figure 6: 3' mRNA fragment of hPOSH (public gi:7959248; SEQ ID NO:6)

atttcatatgttgagtttaactcggctgctaagcagctgatagaatgggataagcctcctgtgccaggag
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aattttaaaaagaaaaaagactactacaggttaagataatttttttacctgtcttttctccatattttaa
gctatgtgattgaagtacctctgttcatagtttcctggtataaagttggttaaaatttcatctgttaata
gatcattaggtaatataatgtatgggttttctattggttttttgcagacagtagagggagattttgtaac
aagggcttgttacacagtgatatggtaatgataaaattgcaatttatcactccttttcatgttaataatt
tgaggactggataaaaggtttcaagattaaaatttgatgttcaaacctttgt

Figure 7: C terminus protein fragment of hPOSH (public gi:7959249; SEQ ID NO:7)

ISYVEFNSAAKQLIEWDKPPVPGVDAGECSSAAAQSSTAPKHSDTKKNTKKRHSFTSLTMANKSSQASQN
RHSMEISPPVLISSSNPTAAARISELSGLSCSAPSQVHISTTGLIVTPPPSSPVTTGPSFTFPSDVPYQA
ALGTLNPPLPPPPLLAATVLASTPPGATAAAAAAGMGPRPMAGSTDQIAHLRPQTRPSVYVAIYPYTPRK
EDELELRKGEMFLVFERCQDGWFKGTSMHTSKIGVFPGNYVAPVTRAVTNASQAKVPMSTAGQTSRGVTM
VSPSTAGGPAQKLQGNGVAGSPSVVPAAVVSAAHIQTSPQAKVLLHMTGQMTVNQARNAVRTVAAHNQER
PTAAVTPIQVQNAAGLSPASVGLSHHSLASPQPAPLMPGSATHTAAISISRASAPLACAAAAPLTSPSIT
SASLEAEPSGRIVTVLPGLPTSPDSASSACGNSSATKPDKDSKKEKKGLLKLLSGASTKRKPRVSPPASP
TLEVELGSAELPLQGAVGPELPPGGGHGRAGSCPVDGDGPVTTAVAGAALAQDAFHRKASSLDSAVPIAP
PPRQACSSLGPVLNESRPVVCERHRVVVSYPPQSEAELELKEGDIVFVHKKREDGWFKGTLQRNGKTGLF
PGSFVENI

Figure 8: Human POSH full mRNA, Annotated Sequence (part 1)

---- - gi|10432611|dbj|AK021429.1|AK021429 Homo sapiens cDNA FLJ11367 fis, clone HEMBA1000303, highly similar to Mus musculus Plenty of SH3s (POSH) mRNA

---- - gi|7959248|dbj|AB040927.1|AB040927 Homo sapiens mRNA for KIAA1494 protein, partial cds

---- - Both hPOSH and KIAA1495

---- - Ring Domain

---- - SH3 Domian

---- - start codon and stop codon of predicted ORF

CTGAGAGACACTGCGAGCGGCGAGCGCGGTGGGGCCGCATCTGCATCAGCCGCCGCAGCCGCTGCGGGGC
CGCGAACAAAGAGGAGGAGCCGAGGCGCGAGAGCAAAGTCTGAAATGGATGTTACATGAGTCATTTTAAG
GGATGCACACAACTATGAACATTTCTGAAGATTTTTTCTCAGTAAAGTAGATAAAGATCGATGAATCAGC
CTTGTTGGATCTTTT GGAG[redacted]
[redacted]
GCAGGACTCTTGTTGGCTCGGGTGTCGAGGAGCTTCCCAGTAACATCTTGCTGGTCAGACTTCTGGATGG
CATCAAACAGAGGCCTTGGAAACCTGGTCCTGGTGGGGGAAGTGGGACCAACTGCACAAATGCATTAAGG
TCTCAGAGCAGCACTGTGGCTAATTGTAGCTCAAAAGATCTGCAGAGCTCCCAGGGCGGACAGCAGCCTC
GGGTGCAATCCTGGAGCCCCCCAGTGAGGGGTATACCTCAGTTA[redacted]
[redacted]
[redacted]A
AACCGTTACCTCAGCCCCCA[redacted]
[redacted]
[redacted]TCGGCTGCTAAGC
AGCTGATAGAATGGGATAAGCCTCCTGTGCCAGGAGTTGATGCTGGAGAATGTTCCTCGGCAGCAGCCCA
GAGCAGCACTGCCCCAAAGCACTCCGACACCAAGAAGAACACCAAAAAGCGGCACTCCTTCACTTCCCTC
ACTATGGCCAACAAGTCCTCCCAGGCATCCCAGAACCGCCACTCCATGGAGATCAGCCCCCCTGTCCTCA
TCAGCTCCAGCAACCCCACTGCTGCTGCACGGATCAGCGAGCTGTCTGGGCTCTCCTGCAGTGCCCCTTC
TCAGGTTCATATAAGTACCACCGGGTTAATTGTGACCCCGCCCCCAAGCAGCCCAGTGACAACTGGCCCC
TCGTTTACTTTCCCATCAGATGTTCCCTACCAAGCTGCCCTTGGAACTTTGAATCCTCCTCTTCCAGCAC
CCCCTCTCCTGGCTGCCACTGTCCTTGCCTCCACACCACCAGGCGCCACCGCCGCCGCTGCTGCTGCTGG
AATGGGACCGAGGCCCATGGCAGGATCCACTGACCAGATTGCACATTTACGGCCGCAGACTCGCCCC[redacted]
[redacted]
[redacted]ACAAGGGCGGTGACAAATGCTTCCCAAGCTAAAGTCCCTATG
TCTACAGCTGGCCAGACAAGTCGGGGAGTGACCATGGTCAGTCCTTCCAGGGCAGGAGGGCCTGCCCAGA
AGCTCCAGGGAAATGGCGTGGCTGGGAGTCCCAGTGTTGTCCCCGCAGCTGTGGTATCAGCAGCTCACAT
CCAGACAAGTCCTCAGGCTAAGGTCTTGTTGCACATGACGGGGCAAATGACAGTCAACCAGGCCCGCAAT
GCTGTGAGGACAGTTGCAGCGCACAACCAGGAACGCCCCACGGCAGCAGTGACACCCATCCAGGTACAGA
ATGCCGCCGGCCTCAGCCCTGCATCTGTGGGCCTGTCCCATCACTCGCTGGCCTCCCCACAACCTGCGCC
TCTGATGCCAGGCTCAGCCACGCACACTGCTGCCATCAGTATCAGTCGAGCCAGTGCCCCTCTGGCCTGT
GCAGCAGCTGCTCCACTGACTTCCCCAAGCATCACCAGTGCTTCTCTGGAGGCTGAGCCCAGTGGCCGGA
TAGTGACCGTTCTCCCTGGACTCCCCACATCTCCTGACAGTGCTTCATCAGCTTGTGGGAACAGTTCAGC
AACCAAACCAGACAAGGATAGCAAAAAAGAAAAAAAGGGTTTGTTGAAGTTGCTTTCTGGCGCCTCCACT
AAACGGAAGCCCCGCGTGTCTCCTCCAGCATCGCCCACCCTAGAAGTGGAGCTGGGCAGTGCAGAGCTTC
CTCTCCAGGGAGCGGTGGGGCCCGAACTGCCACCAGGAGGTGGCCATGGCAGGGCAGGCTCCTGCCCTGT
GGACGGGGACGGACCGGTCACGACTGCAGTGGCAGGAGCAGCCCTGGCCCAGGATGCTTTTCATAGGAAG
GCAAGTTCCCTGGACTCCGCAGTTCCCATCGCTCCACCTCCTCGCCAGGCCTGTTCCTCCCTGGGTCCTG
TCTTGAATGAGTCTAGACCTGTCGTTTGT[redacted]
[redacted]
[redacted]TGAGGAGACT
GACACTGAAGAAGCTTAAAATCACTTCACACAACAAAGTAGCACAAAGCAGTTTAACAGAAAGAGCACAT

-to be continued

Figure 8: Human POSH full mRNA, Annotated Sequence (part 2)

TTGTGGACTTCCAGATGGTCAGGAGATGAGCAAAGGATTGGTATGTGACTCTGATGCCCCAGCACAGTTA
CCCCAGCGAGCAGAGTGAAGAAGATGTTTGTGTGGGTTTTGTTAGTCTGGATTCGGATGTATAAGGTGTG
CCTTGTACTGTCTGATTTACTACACAGAGAAACTTTTTTTTTTTTTTAAGATATATGACTAAAATGGACA
ATTGTTTACAAGGCTTAACTAATTTATTTGCTTTTTTAAACTTGAACTTTTCGTATAATAGATACGTTCT
TTGGATTATGATTTTAAGAAATTATTAATTTATGAAATGATAGGTAAGGAGAAGCTGGATTATCTCCTGT
TGAGAGCAAGAGATTCGTTTTGACATAGAGTGAATGCATTTTCCCCTCTCCTCCTCCCTGCTACCATTAT
ATTTTGGGGTTATGTTTTGCTTCTTTAAGATAGAAATCCCAGTTCTCTAATTTGGTTTTCTTCTTTGGGA
AACCAAACATACAAATGAATCAGTATCAATTAGGGCCTGGGGTAGAGAGACAGAAACTTGAGAGAAGAGA
AGTTAGTGATTCCCTCTCTTTCTAGTTTGGTAGGAATCACCCTGAAGACCTAGTCCTCAATTTAATTGTG
TGGGTTTTTAATTTTCCTAGAATGAAGTGACTGAAACAATGAGAAAGAATACAGCACAACCCTTGAACAA
AATGTATTTAGAAATATATTTAGTTTTATAGCAGAAGCAGCTCAATTGTTTGGTTGGAAAGTAGGGGAAA
TTGAAGTTGTAGTCACTGTCTGAGAATGGCTATGAAGCGTCATTTCACATTTTACCCCAACTGACCTGCA
TGCCCAGGACACAAGTAAAACATTTGTGAGATAGTGGTGGTAAGTGATGCACTCGTGTTAAGTCAAAGGC
TATAAGAAACACTGTGAAAAGTTCATATTCATCCATTGTGATTCTTTCCCCACGTCTTGCATGTATTACT
GGATTCCCACAGTAATATAGACTGTGCATGGTGTGTATATTTCATTGCGATTTCCTGTTAAGATGAGTTT
GTACTCAGAATTGACCAATTCAGGAGGTGTAAAAATAAACAGTGTTCTCTTCTCTACCCCAAAGCCACTA
CTGACCAAGGTCTCTTCAGTGCACTCGCTCCCTCTCTGGCTAAGGCATGCATTAGCCACTACACAAGTCA
TTAGTGAAAGTGGTCTTTTATGTCCTCCCAGCAGACAGACATCAAGGATGAGTTAACCAGGAGACTACTC
CTGTGACTGTGGAGCTCTGGAAGGCTTGGTGGGAGTGAATTTGCCCACACCTTACAATTGTGGCAGGATC
CAGAAGAGCCTGTCTTTTTATATCCATTCCTTGATGTCATTGGCCTCTCCCACCGATTTCATTACGGTGC
CACGCAGTCATGGATCTGGGTAGTCCGGAAAACAAAAGGAGGGAAGACAGCCTGGTAATGAATAAGATCC
TTACCACAGTTTTCTCATGGGAAATACATAATAAACCCTTTCATCTTTTTTTTTTTCCTTTAAGAATTAA
AACTGGGAAATAGAAACATGAACTGAAAAGTCTTGCAATGACAAGAGGTTTCATGGTCTTAAAAAGATAC
TTTATATGGTTGAAGATGAAATCATTCCTAAATTAACCTTTTTTTTAAAAAAAAACAATGTATATTATGT
TCCTGTGTGTTGAATTTAAAAAAAAAAAATACTTTACTTGGATATTCATGTAATATATAAAGGTTTGGTG
AAATGAACTTTAGTTAGGAAAAAGCTGGCATCAGCTTTCATCTGTGTAAGTTGACACCAATGTGTCATAA
TATTCTTTATTTTGGGAAATTAGTGTATTTTATAAAAATTTTAAAAAGAAAAAAGACTACTACAGGTTAA
GATAATTTTTTTACCTGTCTTTTCTCCATATTTTAAGCTATGTGATTGAAGTACCTCTGTTCATAGTTTC
CTGGTATAAAGTTGGTTAAAATTTCATCTGTTAATAGATCATTAGGTAATATAATGTATGGGTTTTCTAT
TGGTTTTTTGCAGACAGTAGAGGGAGATTTTGTAACAAGGGCTTGTTACACAGTGATATGGTAATGATAA
AATTGCAATTTATCACTCCTTTTCATGTTAATAATTTGAGGACTGGATAAAAGGTTTCAAGATTAAAATT
TGATGTTCAAACCTTTGT

Figure 9: Domain Analysis of Human POSH

Domain Name	begin	end	E-value
RING	12	52	1.06e-08
SH3	137	192	2.76e-19
SH3	199	258	4.84e-15
low complexity	366	384	-
low complexity	390	434	-
SH3	448	505	2.40e-19
low complexity	547	563	-
low complexity	652	668	-
low complexity	705	729	-
SH3	832	888	1.47e-14

Figure 10: Diagram of Human POSH Nucleic Acids

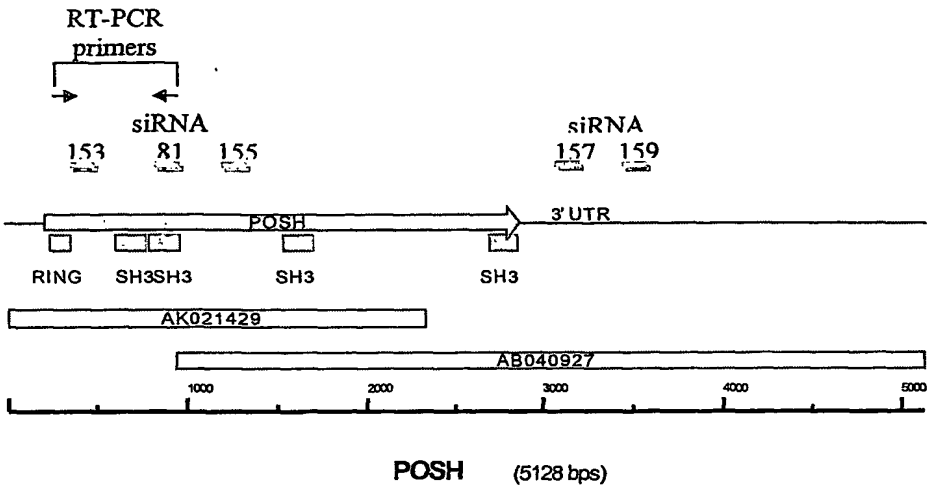


Figure 11: Reduction in Full Length POSH mRNA by siRNA Duplexes

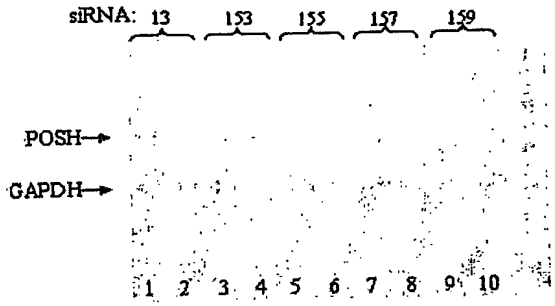


Figure 12: POSH Affects Release of VLP from Cells

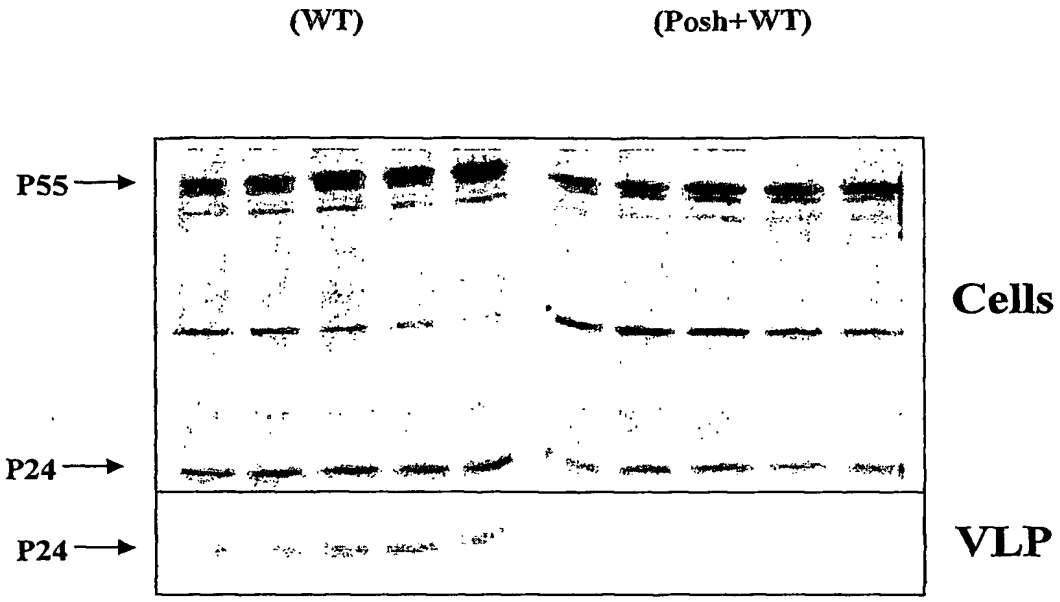


Figure 13: Release of VLP from Cells at Steady State

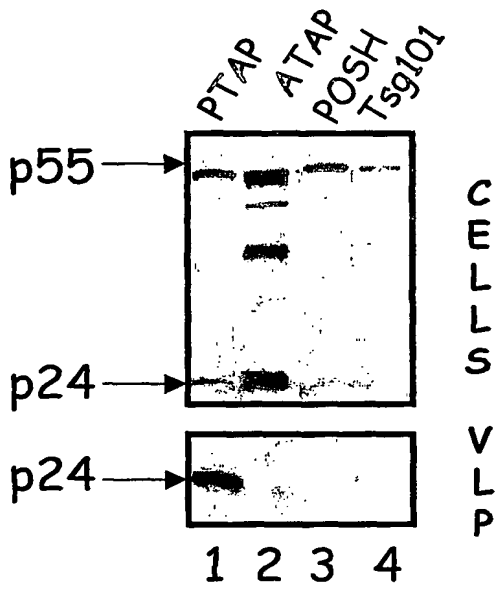


Figure 14: Mouse POSH mRNA sequence (public gi:10946921; SEQ ID NO: 8)

GGGCAGCGGGCTCGGCGGGGCTGCATCTACCAGCGCTGCGGGGCCGCGAACAAAGGCGAGCAGCGGAGGC
GCGAGAGCAAAGTCTGAAATGGATGTTACATGAATCACTTTAAGGGCTGCGCACAACTATGAACGTTCTG
AAGCCGTTTTCTCACTAAAGTCACTCAAGATGGATGAGTCTGCCTTGTTGGACCTTCTGGAGTGCCCTGT
GTGTCTAGAACGCCTGGATGCTTCCGCAAAGGTCTTACCCTGCCAGCATACCTTTTGCAAACGCTGTTTG
CTGGGGATTGTGGGTTCCCGGAATGAACTCAGATGTCCCGAATGCCGGACTCTTGTTGGCTCTGGGGTCG
ACGAGCTCCCCAGTAACATCCTACTGGTCAGACTTCTGGATGGCATCAAGCAGAGGCCTTGGAAACCCGG
CCCTGGTGGGGGCGGCGGGACCACCTGCACAAACACATTAAGGGCGCAGGGCAGCACTGTGGTTAATTGT
GGCTCGAAAGATCTGCAGAGCTCCCAGTGTGGACAGCAGCCTCGGGTGCAAGCCTGGAGCCCCCCAGTGA
GGGGAATACCTCAGTTACCGTGTGCCAAAGCATTATATAACTACGAAGGAAAAGAGCCCGGAGACCTTAA
GTTCAGCAAAGGCGACACCATCATTCTGCGCCGACAGGTGGATGAGAATTGGTACCACGGGGAAGTCAGC
GGGGTCCACGGCTTTTTCCCCACTAACTTCGTGCAGATCATCAAACCTTTACCTCAGCCCCCGCCTCAGT
GCAAAGCACTTTACGACTTTGAAGTGAAAGACAAGGAAGCTGACAAAGATTGCCTTCCCTTCGCAAAGGA
CGACGTACTGACCGTGATCCGCAGAGTGGATGAAAACTGGGCTGAAGGAATGCTGGCAGATAAAATAGGA
ATATTTCCAATTTCATACGTGGAGTTTAACTCAGCTGCCAAGCAGCTGATAGAGTGGGATAAGCCTCCCG
TGCCAGGAGTGGACACGGCAGAATGCCCCTCAGCGACGGCGCAGAGCACCTCTGCCTCAAAGCACCCCGA
CACCAAGAAGAACACCAGGAAGCGACACTCCTTCACCTCCCTCACCATGGCCAACAAGTCTTCCCAGGGG
TCCCAGAACCGCCACTCCATGGAGATCAGCCCTCCTGTGCTCATCAGTTCCAGCAACCCCACAGCCGCAG
CCCGCATCAGCGAACTGTCCGGGCTCTCCTGCAGCGCCCCGTCTCAGGTCCATATAAGCACCACTGGGTT
AATTGTGACCCCACCCCCTAGCAGCCCGGTGACAACTGGCCCTGCGTTCACGTTCCCTTCAGATGTCCCC
TACCAAGCTGCCCTTGGAAGTATGAATCCTCCACTTCCCCCACCCCCTCTCCTGGCGGCCACCGTACTCG
CCTCCACCCCGTCAGGCGCTACTGCTGCTGTTGCTGCTGCTGCTGCCGCCGCCGCCGCTGCTGGAATGGG
ACCCAGGCCTGTGATGGGGTCCTCTGAACAGATTGCACATTTACGGCCTCAGACTCGTCCCAGTGTATAT
GTTGCTATATATCCGTACACTCCCCGGAAGGAAGACGAACTGGAGCTGAGGAAAGGGGAGATGTTTTTGG
TGTTTGAGCGTTGCCAGGACGGCTGGTACAAAGGGACATCGATGCATACCAGCAAGATAGGCGTTTTCCC
TGGCAACTATGTGGCGCCCGTCACAAGGGCGGTGACGAATGCCTCCCAAGCTAAAGTCTCTATGTCTACT
GCGGGTCAGGCAAGTCGCGGGGTGACCATGGTCAGCCCTTCCACTGCAGGAGGACCTACACAGAAGCCCC
AAGGAAACGGCGTGGCCGGAAATCCCAGCGTCGTCCCCACGGCTGTGGTGTCAGCAGCTCATATCCAGAC
AAGTCCTCAGGCTAAGGTCCTGCTGCACATGTCTGGGCAGATGACAGTCAATCAGGCCCGCAATGCTGTG
AGGACAGTTGCAGCACATAGCCAGGAACGCCCCACAGCAGCAGTGACTCCCATCCAGGTCCAGAATGCCG
CCTGCCTTGGTCCTGCATCCGTGGGCCTGCCCCATCATTCTCTGGCCTCCCAACCTCTGCCTCCAATGGC
GGGTCCTGCTGCCCACGGTGCTGCCGTCAGCATCAGTCGAACCAATGCCCCCATGGCCTGCGCTGCAGGG
GCTTCTCTGGCCTCCCCAAATATGACCAGTGCCATGTTGGAGACAGAGCCCAGTGGTCGCACAGTGACCA
TCCTCCCTGGACTCCCCACATCTCCAGAGAGTGCTGCATCAGCGTGTGGGAACAGTTCAGCTGGGAAACC
AGACAAGGACAGTAAGAAAGAAAAAAAGGGCCTACTGAAGCTGCTTTCTGGTGCCTCCACCAAACGCAAG
CCCCGAGTCTCCCCTCCAGCATCACCTACCCTGGATGTGGAGCTGGGTGCTGGGGAGGCTCCCTTGCAGG
GAGCAGTAGGTCCTGAGCTGCCGCTAGGGGGCAGCCACGGCAGAGTGGGGTCATGCCCCACAGATGGTGA
TGGTCCAGTGGCCGCTGGAACAGCAGCCCTAGCCCAGGATGCCTTCCACCGCAAGACAAGCTCCCTGGAC
TCCGCAGTGCCCATTGCTCCACCACCTCGCCAGGCCTGCTCCTCCCTGGGCCCAGTCATGAATGAGGCCC
GGCCTGTTGTTTGTGAAAGGCACAGGGTGGTGGTTTCCTACCCTCCTCAGAGTGAGGCCGAACTTGAACT
CAAGGAAGGAGATATTGTGTTTGTTCATAAGAAACGAGAGGACGGCTGGTTCAAAGGCACGTTACAGAGG
AATGGGAAGACTGGCCTTTTCCCAGGGAGCTTTGTGGAAAACATCTGAGAAGACGGGACACGGAGAAAGC
TTATCATCACACCACGTGTGACTAAAGAGCACAAAGCAGTTTCATAGAAAGAGCACATCTGTGGACTTCC
AGATCTTCAAGAACCGAGCAGAAGATGGGCACCTGACTCCAGAGCCCCGGCCTGGTTACCCCAGGGGCAG
AGGGAAGGAGGACACACCTGTGTGGGTTCCGTCTCTCTGGGTTCTGATGTGTAAAGTGTGCCTTGTAATG
TCTAATGGACTTTACAGATAAATGTCTTTTTTTTTTTTAAGATGTATAACTAAAATGGACAATTGTTTACA
AGGCTTAACTAATTTATTTGCTTTTTTAAAACTTGAACTTTCTTGTAATAGCAAAT

Figure 15: Mouse POSH Protein sequence (Public gi: 10946922; SEQ ID NO: 9)

MDESALLDLLECPVCLERLDASAKVLPCQHTFCKRCLLGIVGSRNELRCPECRTLVGSGVDELPSNILLV
RLLDGIKQRPWKPGPGGGGGTTCTNTLRAQGSTVVNCGSKDLQSSQCGQQPRVQAWSPPVRGIPQLPCAK
ALYNYEGKEPGDLKFSKGDTIILRRQVDENWYHGEVSGVHGFFPTNFVQIIKPLPQPPPQCKALYDFEVK
DKEADKDCLPFAKDDVLTVIRRVDENWAEGMLADKIGIFPISYVEFNSAAKQLIEWDKPPVPGVDTAECP
SATAQSTSASKHPDTKKNTRKRHSFTSLTMANKSSQGSQNRHSMEISPPVLISSSNPTAAARISELSGLS
CSAPSQVHISTTGLIVTPPPSSPVTTGPAFTFPSDVPYQAALGSMNPPLPPPPLLAATVLASTPSGATAA
VAAAAAAAAAAGMGPRPVMGSSEQIAHLRPQTRPSVYVAIYPYTPRKEDELELRKGEMFLVFERCQDGWY
KGTSMHTSKIGVFPGNYVAPVTRAVTNASQAKVSMSTAGQASRGVTMVSPSTAGGPTQKPQGNGVAGNPS
VVPTAVVSAAHIQTSPQAKVLLHMSGQMTVNQARNAVRTVAAHSQERPTAAVTPIQVQNAACLGPASVGL
PHHSLASQPLPPMAGPAAHGAAVSISRTNAPMACAAGASLASPNMTSAMLETEPSGRTVTILPGLPTSPE
SAASACGNSSAGKPDKDSKKEKKGLLKLLSGASTKRKPRVSPPASPTLDVELGAGEAPLQGAVGPELPLG
GSHGRVGSCPTDGDGPVAAGTAALAQDAFHRKTSSLDSAVPIAPPPRQACSSLGPVMNEARPVVCERHRV
VVSYPPQSEAELELKEGDIVFVHKKREDGWFKGTLQRNGKTGLFPGSFVENI

Figure 16: Drosophila melanogaster POSH mRNA sequence (public gi:17737480; SEQ ID NO:10)

CATTTGTATCCGCTTGGCCACGAGCTTTGGCTGCACTTGGCAAACTTAATAAATTAAACATTGAATCCTG
CCTATTGCAACGATAATATAATCTGATTTAGTGCATTAAGAACGACAAGTAGCGATTATAATAGTAGATT
TTAGCATTTGAGCTAAATTTATTTCCCAACCGCGTCTTGGGATTGCGTATGCGTGAGCCAGTACCTGCAT
GTGTGTGTGTTTTGGAATGTGGCCCTGCACGAAATTCAAATAGTGACCATCCTTGAGATTTTGCATACTG
GCAAGATGGACGAGCACACGTTAAACGACCTGTTGGAGTGCTCCGTGTGTCTTGAGCGACTGGACACCAC
ATCGAAGGTGCTGCCATGCCAGCACACCTTCTGCCGCAAATGCTTGCAGGACATTGTGGCCAGTCAGCAC
AAGTTGCGATGCCCGGAGTGCCGCATCCTGGTCTCTTGCAAAATTGATGAGCTGCCTCCAAACGTCTTGC
TGATGCGAATCTTAGAAGGCATGAAACAAAATGCAGCAGCTGGCAAAGGAGAAGAAAAGGGAGAGGAGAC
TGAAACACAGCCGGAAAGGGCCAAACCTCAGCCGCCAGCGGAATCAGTGGCCCCGCCTGACAACCAACTA
CTCCAGCTGCAGTCACATCAGCAATCTCATCAGCCGGCTCGTCACAAGCAACGTCGATTTCTACTCCCCC
ACGCCTATGCCCTCTTTGACTTCGCCTCCGGTGAAGCCACCGATCTAAAGTTCAAGAAAGGGGATCTGAT
ACTGATCAAGCATCGCATCGACAACAACTGGTTTGTGGGTCAAGCGAATGGTCAGGAGGGCACATTTCCC
ATCAACTACGTCAAGGTATCGGTTCCGCTGCCCATGCCGCAGTGCATTGCCATGTATGACTTTAAGATGG
GGCCCAACGACGAGGAGGGATGCCTCGAATTTAAGAAAAGCACTGTAATACAGGTAATGCGCCGAGTTGA
TCATAATTGGGCAGAAGGACGAATTGGCCAGACCATCGGAATCTTTCCAATAGCATTCGTTGAGCTGAAT
GCAGCGGCCAAAAAGCTGTTGGACAGCGGGCTACACACCCATCCATTCTGCCATCCACCGAAGCAACAGG
GGCAGCGGGCCCTTCCTCCGGTTCCAGTTATTGATCCCACGGTGGTCACGGAATCCAGTTCGGGATCCTC
CAATTCCACGCCGGGCAGCAGCAATTCAAGCTCCACATCCAGCTCGAATAACTGCAGTCCGAATCACCAA
ATCTCACTGCCGAATACCCCCCAACATGTAGTAGCTTCCGGATCGGCGTCTGTTCGTTTCCGTGACAAGG
GAGCAAAGGAGAAACGCCACTCACTAAATGCTTTGCTGGGAGGAGGAGCTCCATTAAGTCTGCTGCAGAC
CAACCGCCATTCGGCTGAAATTCTTAGCCTGCCCCATGAACTAAGCCGCTTGGAAGTTTCCAGCTCAACA
GCTCTAAAACCCACGTCAGCCCCACAGACATCGCGTGTACTTAAGACCACTGTTCAGCAGCAGATGCAAC
CGAATTTACCCTGGGGATACTTAGCCCTGTTCCCATACAAACCACGCCAAACGGATGAGCTGGAATTAAA
AAAGGGTTGTGTTTACATTGTGACCGAACGATGTGTGGACGGTTGGTTCAAGGGAAAAAACTGGTTGGAC
ATCACTGGAGTGTTCCCGGGCAACTACCTGACGCCCCTGCGCGCCCGCGACCAGCAGCAGTTAATGCATC
AATGGAAATATGTTCCCCAAAATGCAGACGCCCAGATGGCACAAGTACAGCAGCATCCAGTTGCACCAGA
TGTGCGACTCAACAACATGCTGTCCATGCAACCGCCTGATTTGCCACCTCGTCAGCAGCAGGCTACCGCC
ACGACCACCAGTTGCTCTGTGTGGTCGAAACCAGTGGAGGCGCTGTTCAGCAGAAAATCGGAGCCCAAGC
CTGAAACTGCCACAGCTTCGACTACGAGCAGCAGTTCCTCTGGAGCAGTGGGACTTATGAGGAGATTAAC
TCACATGAAAACACGCTCCAAATCTCCGGGAGCGTCCTTGCAGCAAGTTCCGAAAGAAGCTATTAGCACA
AATGTGGAATTTACAACAAACCCATCAGCTAAATTGCATCCAGTACATGTAAGATCCGGCTCGTGCCCCA
GTCAGCTGCAGCACAGTCAACCGCTCAATGAAACTCCAGCAGCCAAGACAGCGGCACAACAACAGCAGTT
CCTACCCAAGCAGCTGCCTTCCGCTTCTACGAACAGCGTTTCGTACGGATCGCAACGCGTGAAAGGAAGC
AAGGAACGTCCTCACTTGATTTGCGCGAGACAATCATTAGATGCAGCTACATTTCGCAGTATGTACAACA
ATGCCGCGTCGCCGCCGCCACCTACTACTTCCGTGGCCCCAGCTGTCTACGCCGGCGGTCAGCAACAGGT
GATTCCTGGAGGTGGAGCGCAATCCCAGTTGCATGCCAATATGATTATTGCACCCAGCCATCGGAAGTCG
CACAGCCTAGATGCGAGTCATGTGCTGAGTCCCAGCAGCAATATGATCACGGAGGCGGCCATTAAGGCCA
GCGCCACCACTAAGTCTCCTTACTGCACGAGGGAAAGTCGATTCCGCTGCATTGTGCCGTATCCACCAAA
CAGTGACATTGAACTAGAGCTACATTTGGGCGACATTATCTACGTCCAGCGGAAGCAGAAGAACGGCTGG
TATAAGGGCACCCATGCCCGTACCCACAAAACCGGGCTGTTCCCCGCCTCCTTTGTTGAACCGGATTGTT
AGGAAAGTTATGGTTCAAACTAGAATTTATTAAGCGAAATTCCAAATTACTTGTCTAAAAGGATTCAATC
GTCGGTCTATTCGGGCTTCCAAATACGCAATCTCATATTTCTCTTTTCAAAAAAGAAACCGTTTTGTACT
CTTCCAATCGAATGGGCAGCTCGCCGTTGTACTTTTTTATACAATGCTTGATCAAAATAGGCTAGCCATG
TAAGACTTAGGGAACAGTTACTTAAGCCTTAGCGATTAGTTAGCTAGAGAAATAATCTAACCGATCCTTG
TGCCCTCTACAAAGTTATTTGTAATATACGATACTCAGTAATAAAAAAAAAAAAAAAAAAAAAAAAAAA

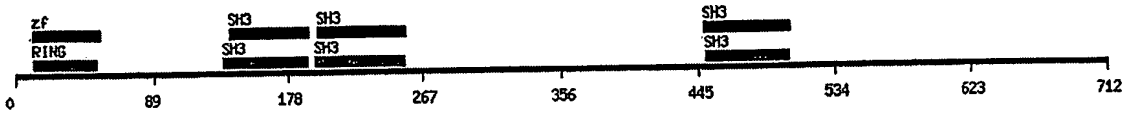
Figure 17: Drosophila melanogaster POSH protein sequence (public gi:17737481; SEQ ID NO:11)

MDEHTLNDLLECSVCLERLDTTSKVLPCQHTFCRKCLQDIVASQHKLRCPECRILVSCKIDELPPNVLLM
RILEGMKQNAAAGKGEEKGEETETQPERAKPQPPAESVAPPDNQLLQLQSHQQSHQPARHKQRRFLLPHA
YALFDFASGEATDLKFKKGDLILIKHRIDNNWFVGQANGQEGTFPINYVKVSVPLPMPQCIAMYDFKMGP
NDEEGCLEFKKSTVIQVMRRVDHNWAEGRIGQTIGIFPIAFVELNAAAKKLLDSGLHTHPFCHPPKQQGQ
RALPPVPVIDPTVVTESSSGSSNSTPGSSNSSSTSSSNNCSPNHQISLPNTPQHVVASGSASVRFRDKGA
KEKRHSLNALLGGGAPLSLLQTNRHSAEILSLPHELSRLEVSSSTALKPTSAPQTSRVLKTTVQQQMQPN
LPWGYLALFPYKPRQTDELELKKGCVYIVTERCVDGWFKGKNWLDITGVFPGNYLTPLRARDQQQLMHQW
KYVPQNADAQMAQVQQHPVAPDVRLNNMLSMQPPDLPPRQQQATATTTSCSVWSKPVEALFSRKSEPKPE
TATASTTSSSSSGAVGLMRRLTHMKTRSKSPGASLQQVPKEAISTNVEFTTNPSAKLHPVHVRSGSCPSQ
LQHSQPLNETPAAKTAAQQQQFLPKQLPSASTNSVSYGSQRVKGSKERPHLICARQSLDAATFRSMYNNA
ASPPPPTTSVAPAVYAGGQQQVIPGGGAQSQLHANMIIAPSHRKSHSLDASHVLSPSSNMITEAAIKASA
TTKSPYCTRESRFRCIVPYPPNSDIELELHLGDIIYVQRKQKNGWYKGTHARTHKTGLFPASFVEPDC

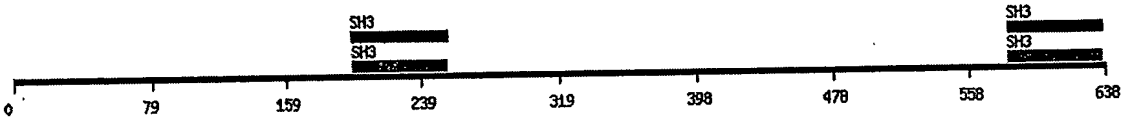
Figure 18: POSH Domain Analysis

hPOSH protein sequence :

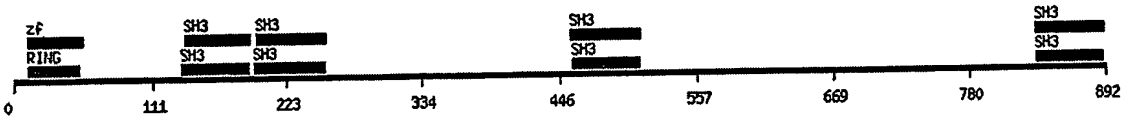
N terminus protein fragment of hPOSH (public gi:10432612):



C terminus protein fragment of hPOSH (public gi:7959249):



Mouse POSH Protein sequence (Public gi: 10946922):



Drosophila melanogaster POSH protein sequence (public gi:17737481)

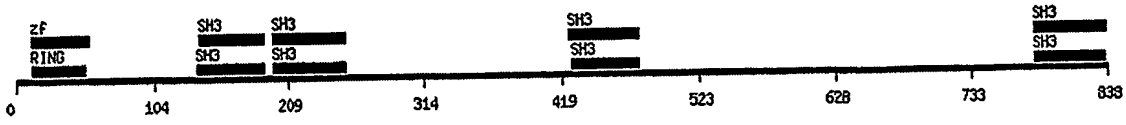


Figure 19: Human POSH has ubiquitin ligase activity

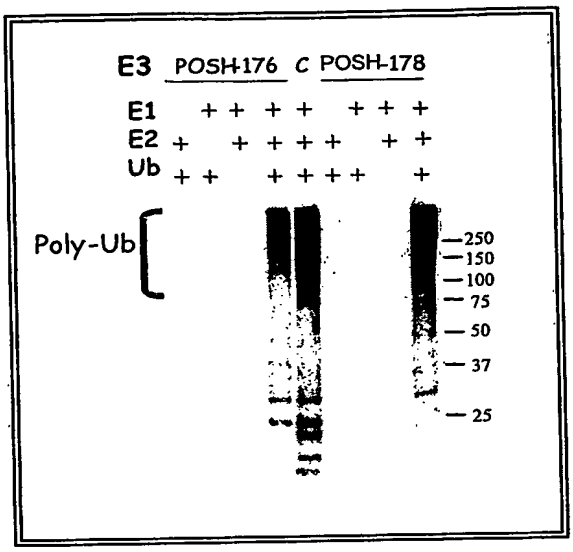


Figure 20.

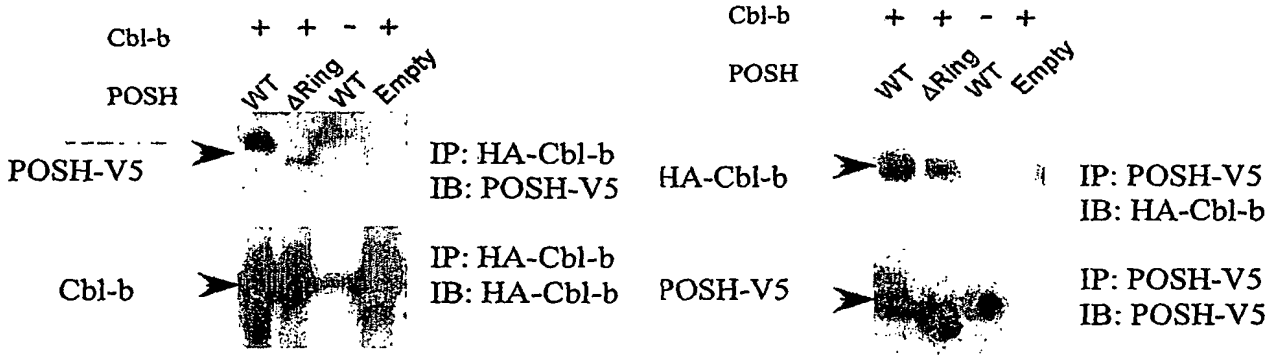

Cbl-b
+ + - +
POSH
WT
ΔRing
WT
Empty
POSH-V5
IP: HA-Cbl-b
IB: POSH-V5
Cbl-b
IP: HA-Cbl-b
IB: HA-Cbl-b
Cbl-b
+ + - +
POSH
WT
ΔRing
WT
Empty
HA-Cbl-b
IP: POSH-V5
IB: HA-Cbl-b
POSH-V5
IP: POSH-V5
IB: POSH-V5

Figure 21. PLD activity in medium of transfected cells

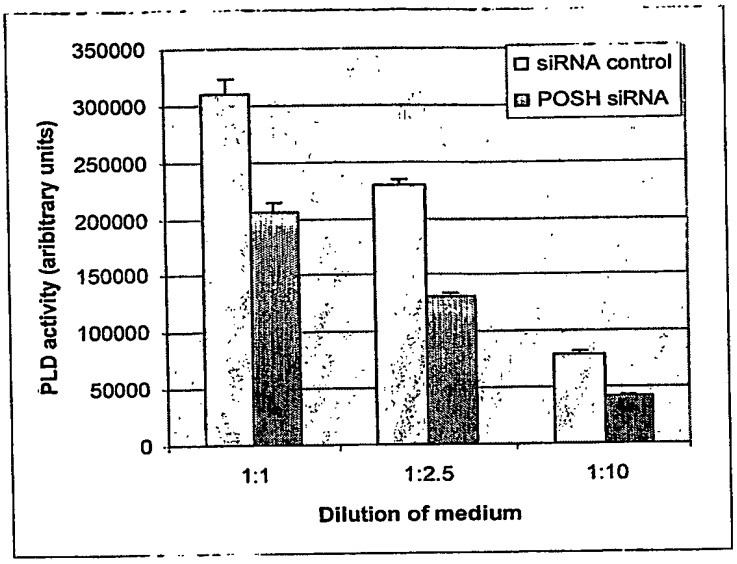


Figure 22.

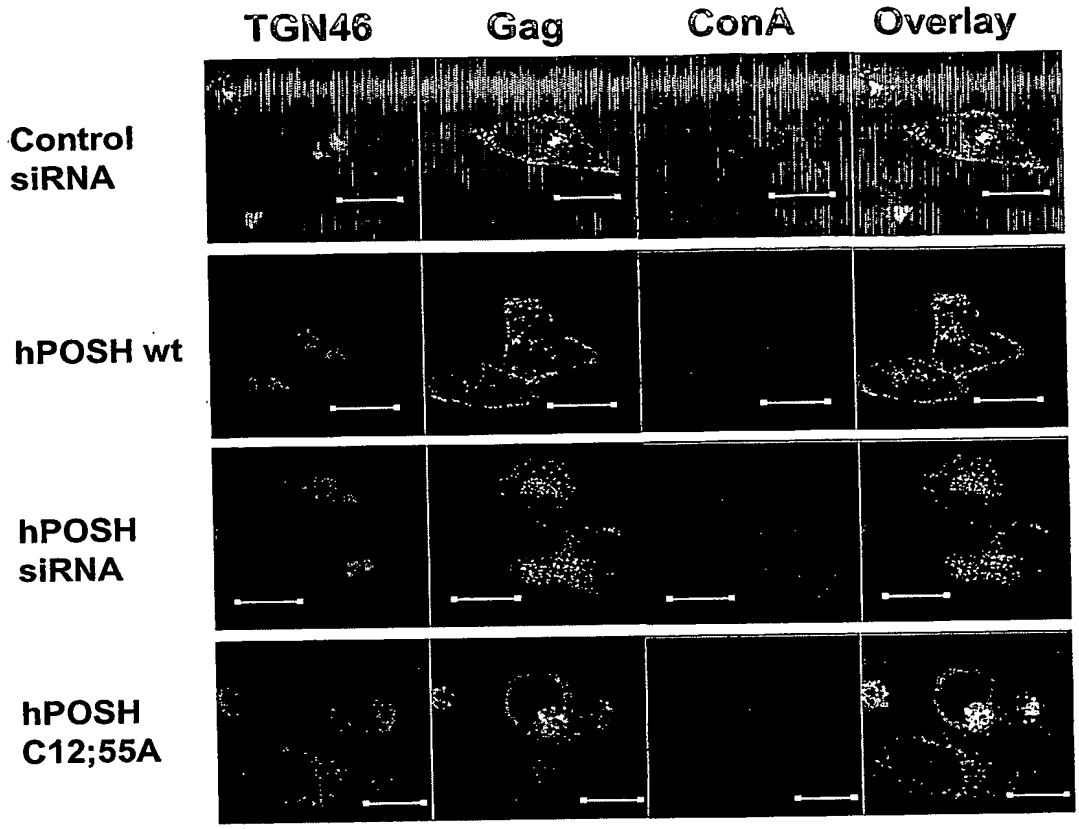

TGN46
Gag
ConA
Overlay
Control siRNA
hPOSH wt
hPOSH siRNA
hPOSH C12;55A

Figure 23.

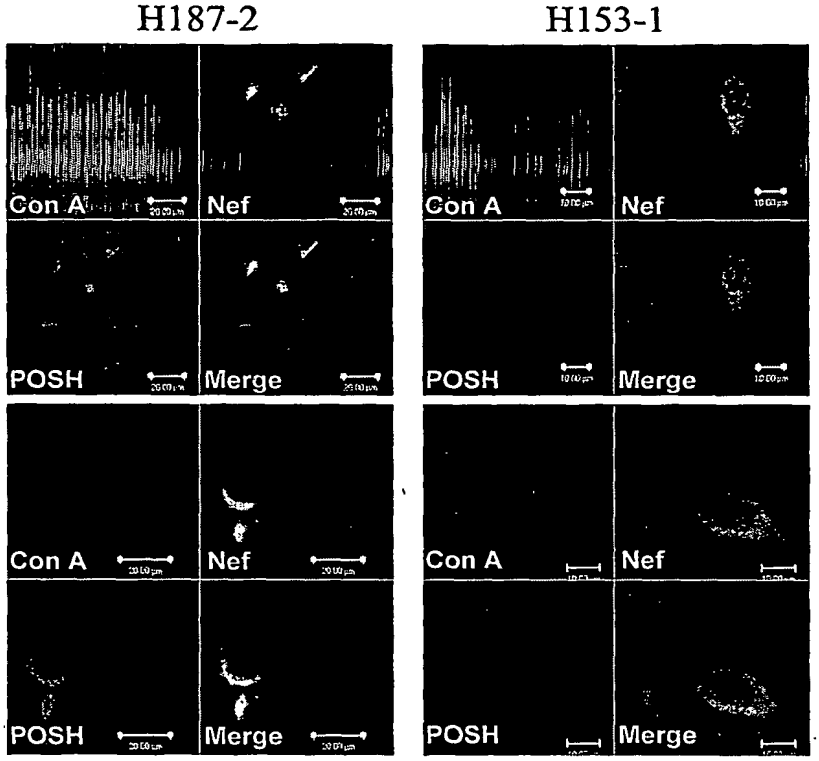

H187-2
H153-1
Con A
Nef
POSH
Merge
Con A
Nef
POSH
Merge
Con A
Nef
POSH
Merge
Con A
Nef
POSH
Merge

Figure 24.

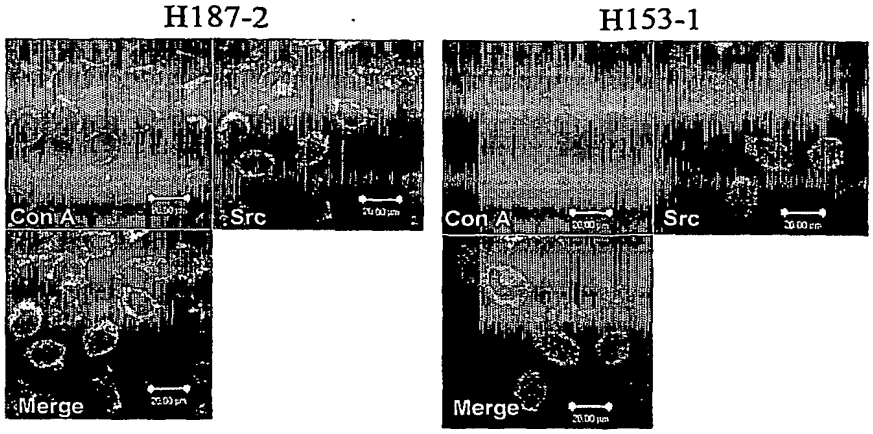
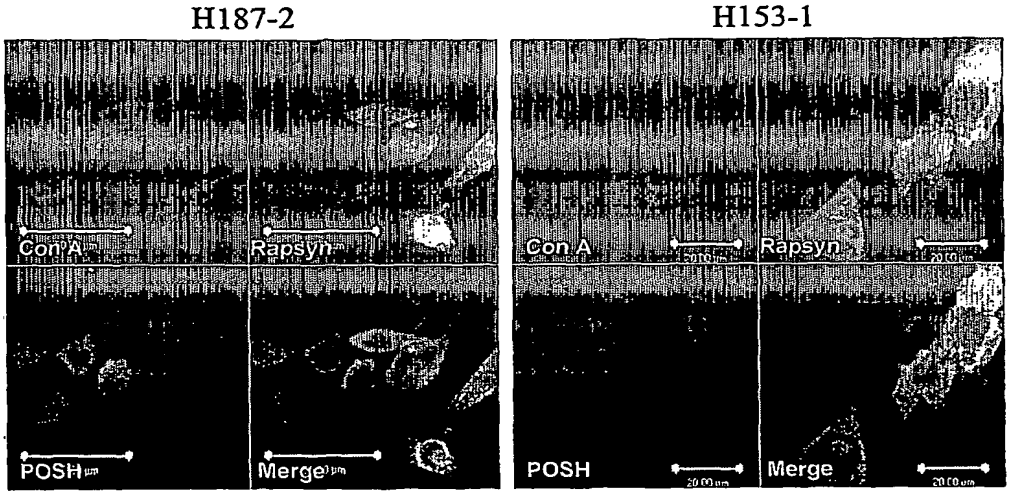


Figure 25.



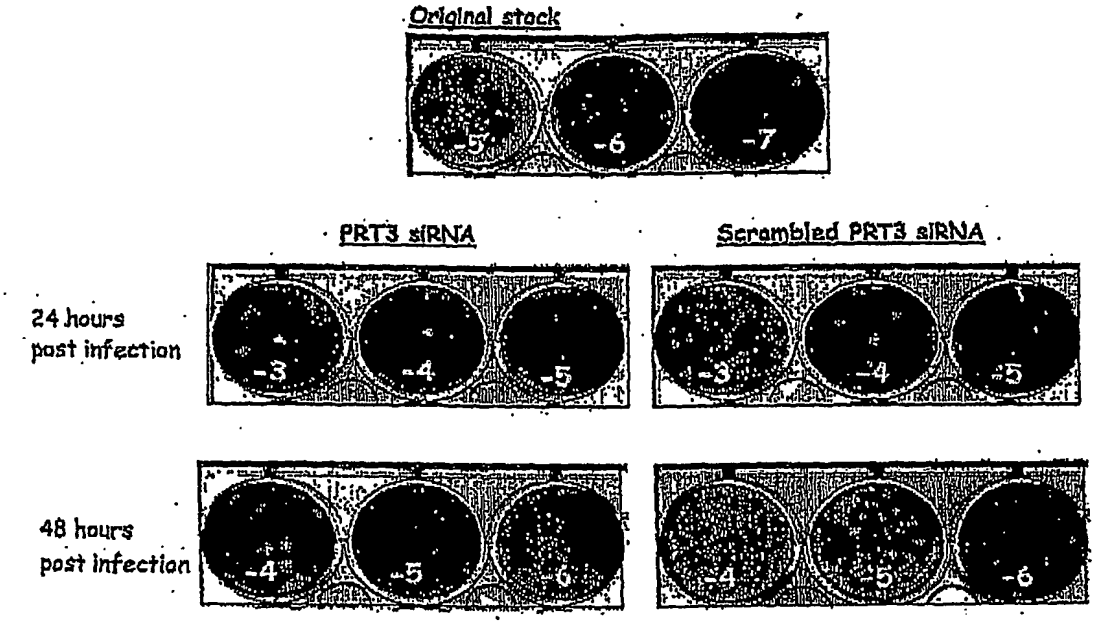

Original stock
-5
-6
-7
PRT3 siRNA
Scrambled PRT3 siRNA
24 hours post infection
-3
-4
-5
-3
-4
-5
48 hours post infection
-4
-5
-6
-4
-5
-6

FIGURE 26

Figure 27.

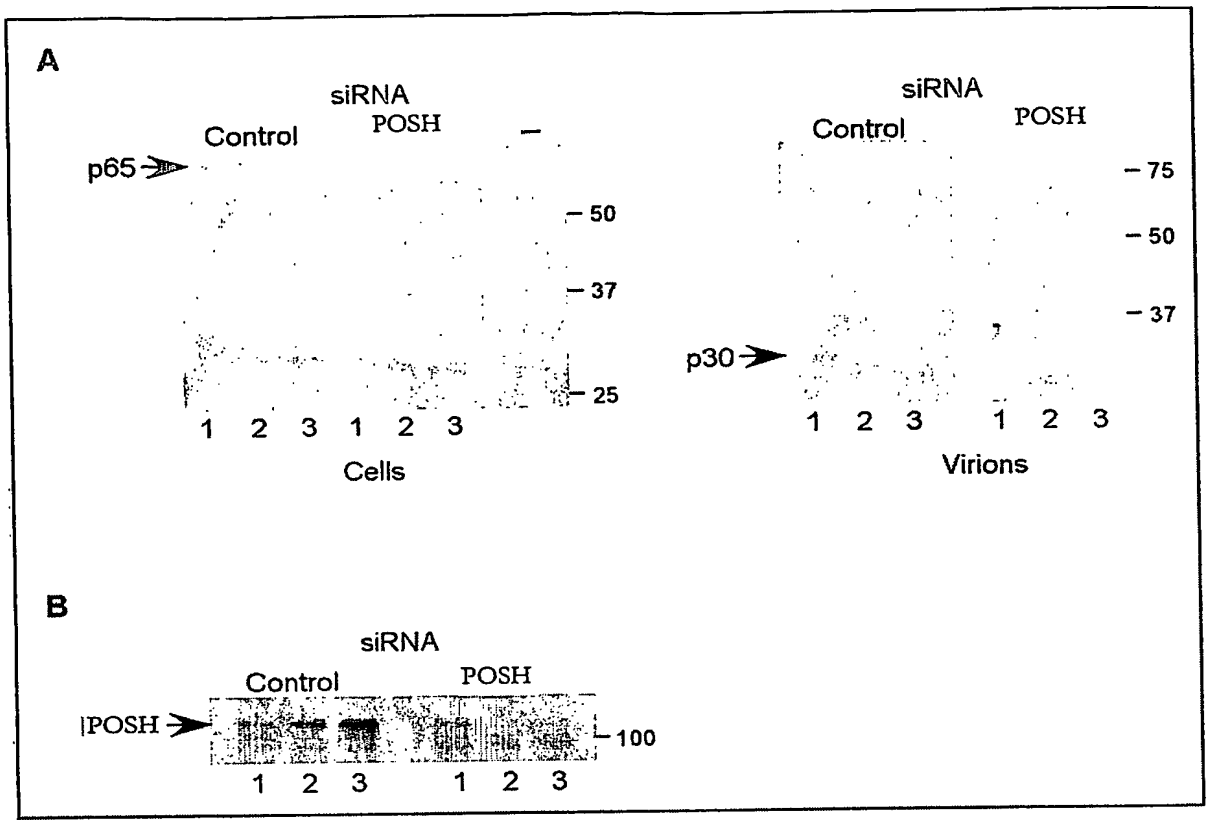

A
siRNA
Control
POSH
p65
50
37
25
1 2 3 1 2 3
Cells
siRNA
Control
POSH
75
50
37
p30
1 2 3 1 2 3
Virions
B
siRNA
Control
POSH
POSH
100
1 2 3 1 2 3

Figure 28.

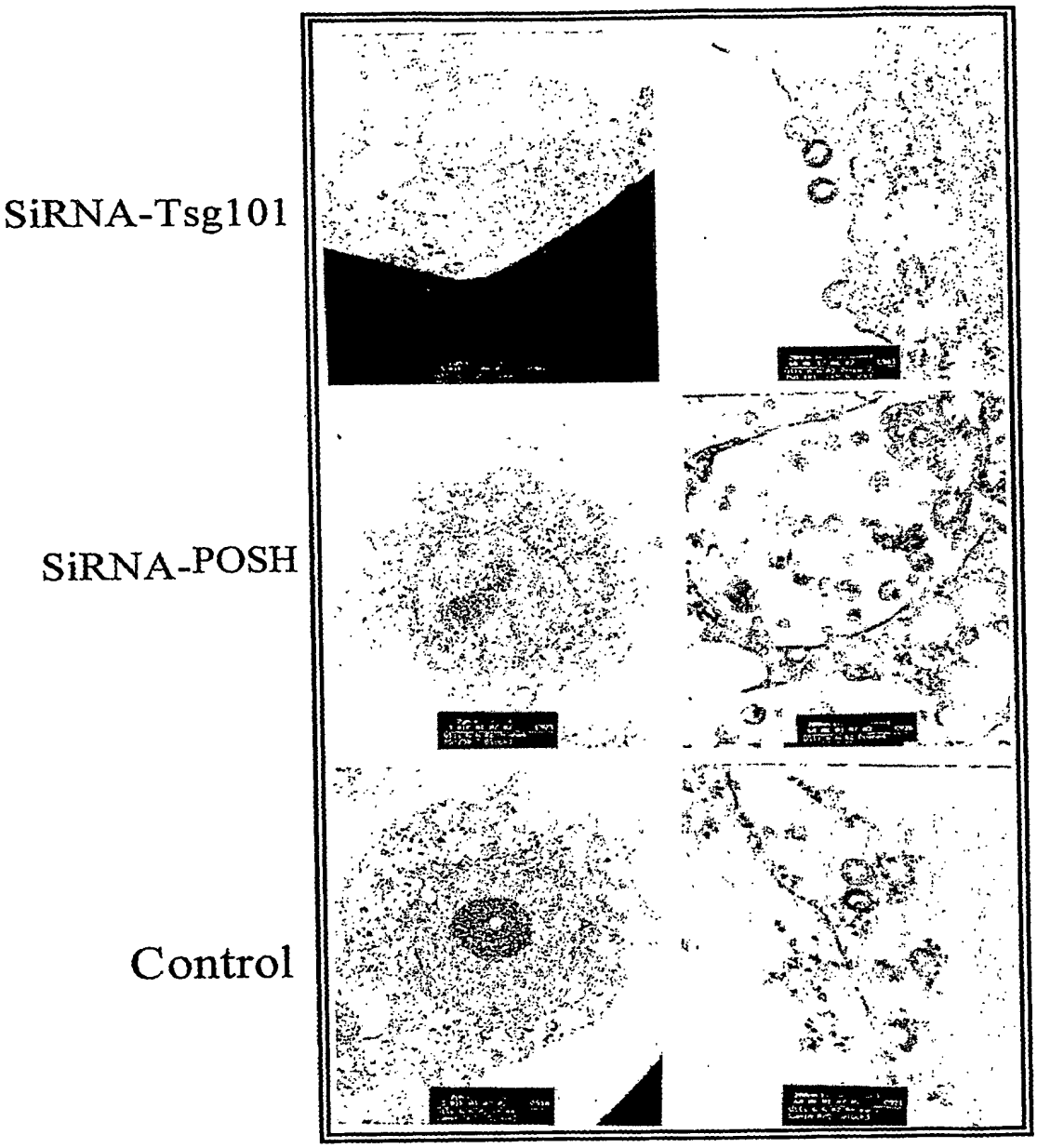


Figure 29.

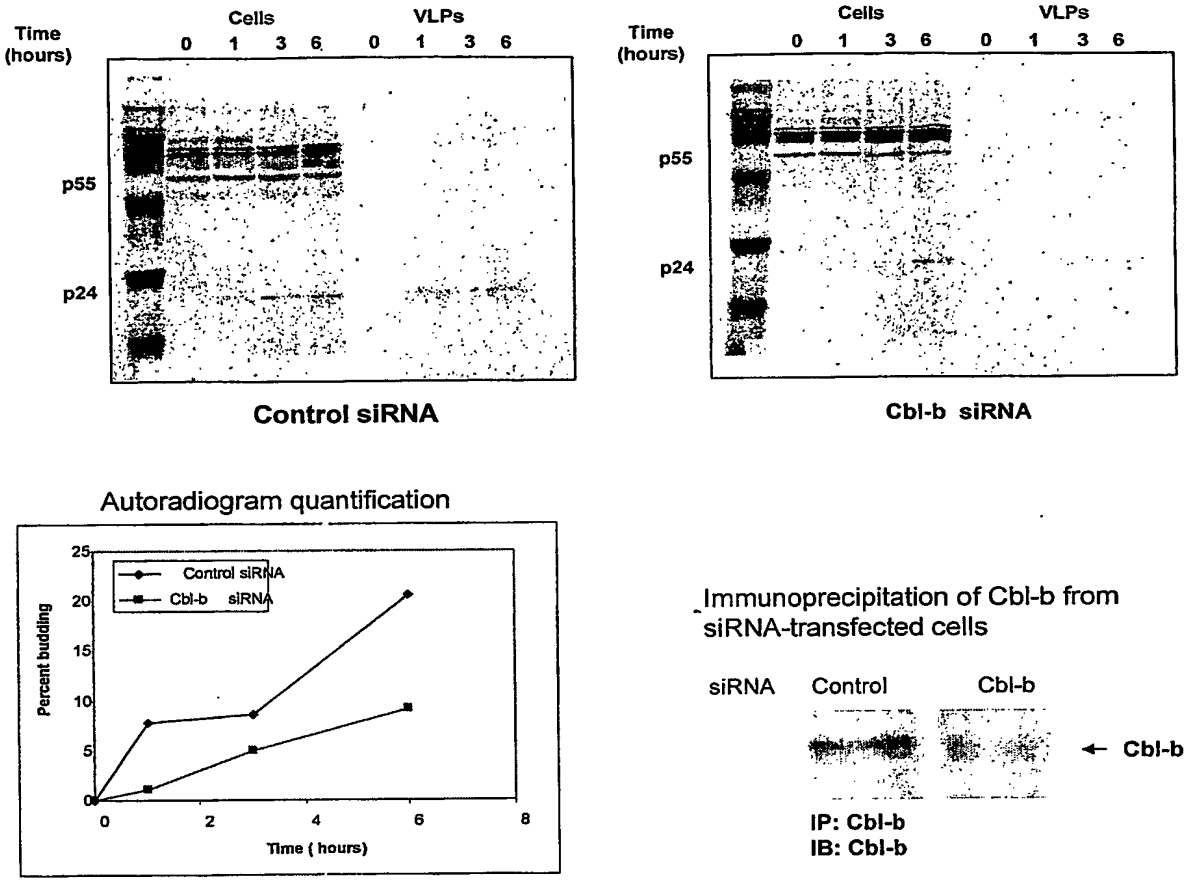
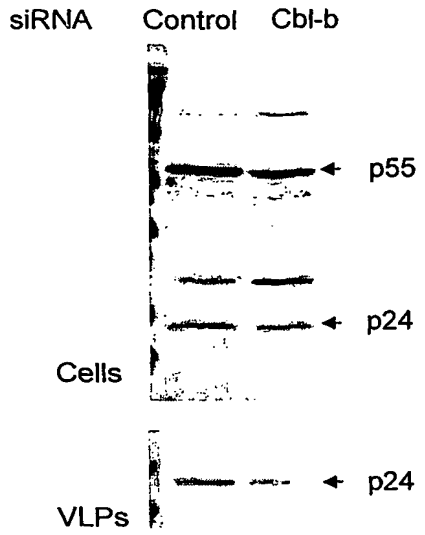

Time (hours)
Cells
VLPs
0 1 3 6 0 1 3 6
p55
p24
Control siRNA
Time (hours)
Cells
VLPs
0 1 3 6 0 1 3 6
p55
p24
Cbl-b siRNA
Autoradiogram quantification
Control siRNA
Cbl-b siRNA
Percent budding
Time (hours)
Immunoprecipitation of Cbl-b from siRNA-transfected cells
siRNA
Control
Cbl-b
Cbl-b
IP: Cbl-b
IB: Cbl-b

Figure 30.


siRNA
Control
Cbl-b
p55
p24
Cells
p24
VLPs

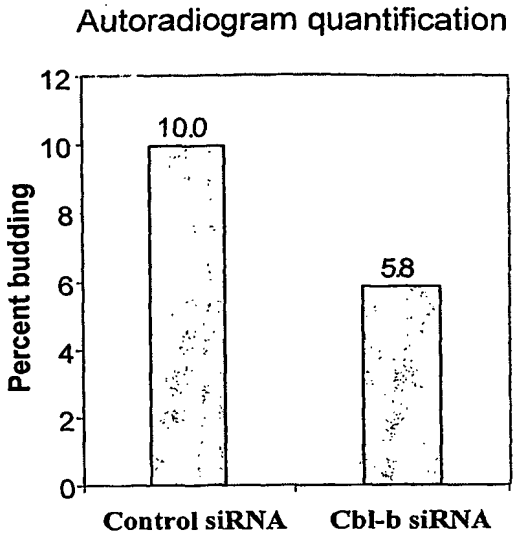

Autoradiogram quantification
Percent budding
12
10
8
6
4
2
0
10.0
5.8
Control siRNA
Cbl-b siRNA

Figure 31. RT activity in VLP secreted from cells treated with indicated siRNAs.

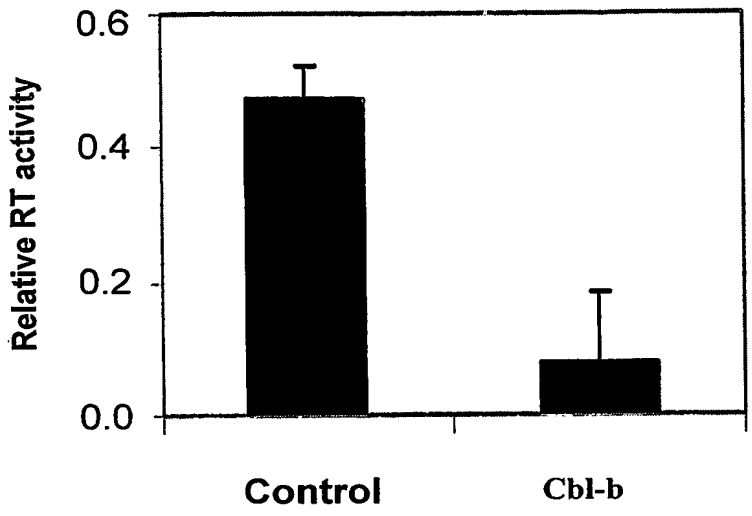


Figure 32. HIV-1 infectivity assay in cells treated with siRNA against Cbl-b.

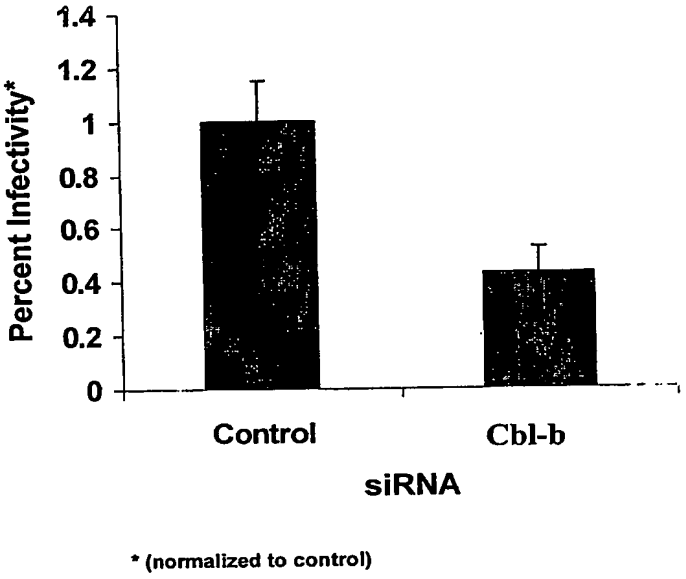


Figure 33. RT activity in VLP secreted from cells transfected with indicated plasmids.

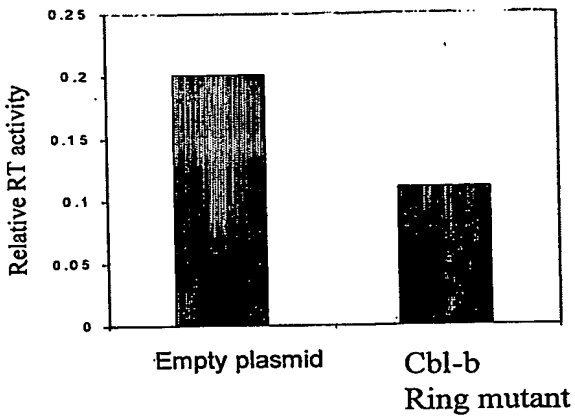
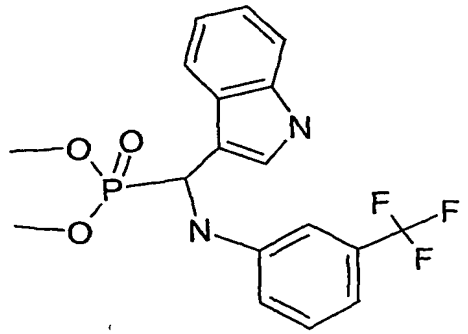
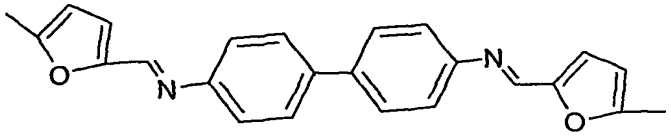
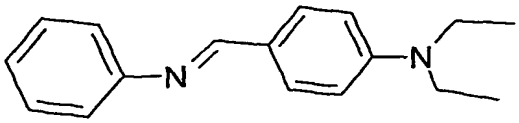
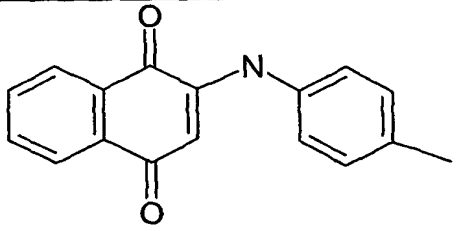
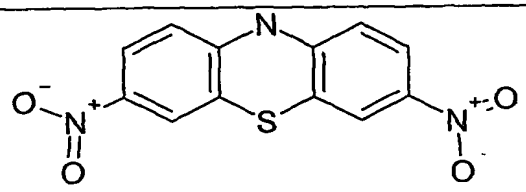
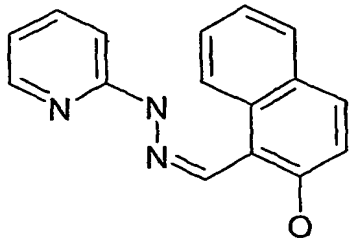
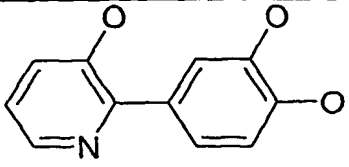
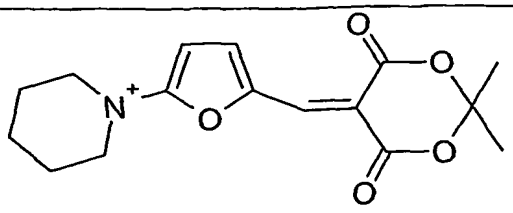
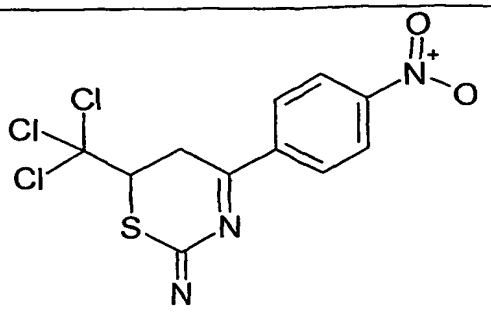
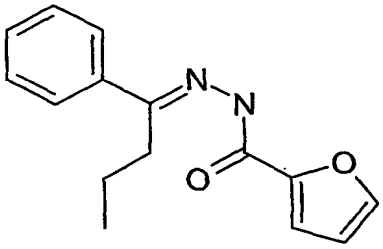
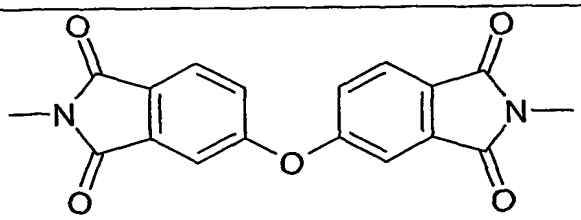
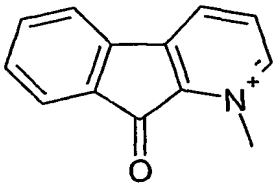
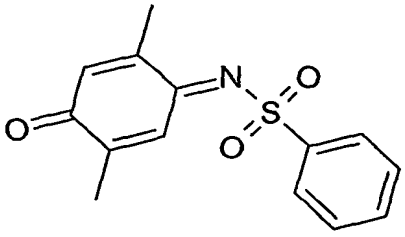


Figure 34.

CAS	MW (gr/ mol)	Structure	%A
412945-52-9	398.33		48.7928
52686-41-6	368.44		36.7342
38536-86-6	252.36		25.4204
57182-49-7	263.3		33.8353
63245-76-1	289.27		5.22885
120999-01-1	263.3		42.2514
126324-76-3	203.2		25.1252

164399-38-0	386.25		35.0247
324526-59-2	352.63		20.7212
295345-11-8	256.31		37.633
no cas	336.31		37.2901
325958-44-9	323.14		27.7748
88680-99-3	275.33		23.2871

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